

REMARKS

Claims 1, 4, 5 and 7-13 are pending in this application. By this Amendment, new claims 8-13 are added. No new matter has been added.

Applicant appreciates the courtesies shown to Applicant's representative by Examiner Duong in the November 14, 2006 personal interview. Applicant's separate record of the substance of the interview is incorporated into the following remarks.

I. Information Disclosure Statement

The Examiner is requested to consider the references submitted with the October 5, 2006 IDS and to return to Applicant an initialed copy of the PTO-1449 form.

II. Claim Rejections

The Office Action (i) rejects claims 1, 5 and 7 under 35 U.S.C. §103(a) over U.S. Patent Publication No. 2003/0038904 to Kaneko et al. (Kaneko) in view of U.S. Patent No. 6,788,357 to Ogishima et al. (Ogishima) and (ii) rejects claim 4 under 35 U.S.C. §103(a) over Kaneko in view of Ogishima and further in view of U.S. patent No. 6,281,952 to Okamoto et al. (Okamoto). Applicant respectfully traverses the rejections.

Regarding claim 1, Applicant notes that the Office Action's rejection is confusing because it initially references Ogishima (page 3, line 1). Thereafter, the citations which the Office Action provides do not match Ogishima. These citations appear to be in reference to Kaneko. Applicant's arguments follow this understanding.

Kaneko discloses a liquid crystal device 1 which includes a first substrate 2a, a liquid crystal L, a second substrate 2b, a transfective layer 11, and TFD elements 33.

The Office Action admits that Kaneko fails to disclose (1) a liquid crystal having negative dielectric anisotropy, (2) an adjusting layer provided at least in a reflective area and making the thickness of the liquid crystal layer in the transmissive area thicker than in the reflective area, (3) the adjusting layer having a slope in the vicinity of the boundary between

the reflective and transmissive areas, (4) and at least one of a slit, opening, and ridge provided in overlap with the slope of the adjusting layer. The Office Action cites to Ogishima at Figs. 31, 52 and 53A, and alleges that Ogishima cures these deficiencies.

Applicant respectfully disagrees. Regarding claim 1, Kaneko, even if modified to include the level difference 306 and protrusions 326' of Ogishima, fails to disclose (1) a reflecting layer... having a portion extending directly below a switching element; (2) a reflecting layer... in non-overlapping condition with a transmissive display area; and (3) a reflecting layer... having a portion extending beneath the slope of an adjusting layer.

Under the Office Action's interpretation of Kaneko, Kaneko fails to disclose a reflective layer that extends beneath the switching element. The Office Action indicates that element 11a of Kaneko is a "light shielding portion." However, according to paragraph [0086] of Kaneko, element 11a is an extended portion 11a of the transfective film 11, which forms a light shielding portion 23 where laminated with an extended portion 12a of the color filter film 12. Paragraph [0086] further states that the light shielding portion 23 is "installed in the peripheral region of the effective display region V", so the light shielding portion 23 cannot be under the TFDs 33 as claimed. Further, because the light shielding portion 23 is outside the effective display region V, it cannot shield any alignment disorder of the liquid crystal layer.

Fig. 2 shows both the extended portion 12a of the color filter film 12 (indicated by hatching) and the color filter film 12 itself (indicated by a black area) in a laminated condition with the transfective film 11 in the effective display region V. If both the extended portion 12a and the color filter film 12 itself produce the light shielding portion 23 when laminated with the transfective film 11, then the entire effective display region V would be covered with a light shield. If this were so, the display would be continuously dark and incapable of display.

Therefore, Kaneko teaches one skilled in the art that only the extended portion 12a results in the light shielding portion 23 when laminated with the transfective film 11. Fig. 2 clearly shows that the extended portion 12a is laminated with the transfective film 11 only at positions between adjacent TFDs 33.

The proposed combination of Kaneko and Ogishima further fails to disclose a reflecting layer in non-overlapping condition with a transmissive display area. Kaneko discloses transfective film 11 extending under the pixel electrodes 14a (see Fig. 2). During the personal interview, Examiner Duong alleged that, at paragraph [0077], Kaneko discloses openings in transfective film 11. Applicant notes that Kaneko discloses that transfective film 11 can be made thin to transmit light, thus indicating that transfective film 11 can be present in a transmissive region (paragraph [0077]). Additionally, while Kaneko discloses that transfective film 11 can have an opening, Kaneko does not define the extent of any opening or where the boundaries are located. Thus, Examiner Duong's assertion that transfective film 11 has openings corresponding to the transmissive region(s) of Kaneko is pure speculation. The Office Action has thus not met its burden for establishing a *prima facie* rejection.

The proposed combination of Kaneko and Ogishima further fails to disclose a reflecting layer in non-overlapping condition with a transmissive display area because Ogishima discloses that reflecting electrode 312r extends down the slope of level difference 306 and into transmissive region T (see Fig. 31 showing reflecting electrode 312r extending over transparent electrode 312t). Ogishima discloses level difference 306 in structural relation to reflecting electrode 312r and thus, the Office Action is not at liberty to arbitrarily move level difference 306 relative to a reflective covering film (whether the reflective layer is Ogishima reflective electrode 312r or Kaneko's transfective film 11) without establishing a *prima facie* case of why one of ordinary skill in the art would have done this.

The proposed combination of Kaneko in view of Ogishima further fails to disclose that the reflecting layer is beneath the slope of an adjusting layer because Ogishima's level difference 306 is below, not above, reflecting electrode 312r. Ogishima discloses level difference 306 in relation to reflective electrode 312r. Thus, the Office Action is not at liberty to move level difference 306 above reflecting electrode 312r or, in combination with Kaneko, move level difference 306 above transfective film 11, without establishing a *prima facie* motivation for one of ordinary skilled in the art to do so. Because the Office Action has provided no motivation and reasonable expectation of success supporting why it would have been obvious to modify the placement of the level difference 306 to be above transfective layer 11, the Office Action has not established a *prima facie* rejection.

Further, Applicant asserts that placing level difference 306 above Kaneko's transfective film 11 would not reasonably be expected to be successful and, further, would render the display of Kaneko inoperative and thus unsuitable for its intended purpose. Because level difference 306 is below reflective electrode 312r in Ogishima, level difference 306 has no need to be transparent. Thus, adding level difference 306 above transfective film 11 in Kaneko would likely block light from reaching transfective film 11. This would render transfective film 11 inoperative as a reflecting layer and thus would render Kaneko's display inoperative for its intended purpose.

For the foregoing reasons, Applicant requests withdrawal of the rejections.

III. New Claims

New claim 8 is directed to a transfective liquid crystal display having at least one of a slit, opening, or ridge provided such that the slit, opening and ridge does not extend beyond the edges, in plan view, of the slope of the adjusting layer.

Ogishima's protrusions 326' extend beyond the edges of the slope, in plan view, at level difference 306 into both transmission region T and reflection region R (See Figs. 50 and 52). Thus, new claim 8 is patentable over the alleged combination of Kaneko and Ogishima.

New claim 9 is directed to a transmissive liquid crystal display having a plurality of dots, each dot having a reflective display area and a transmissive display area with features similar to those recited in claims 1-7.

The alleged combination of Kaneko and Ogishima fails to disclose a transflective liquid crystal display having a plurality of dots each dot having a reflective display and a transmissive display as claimed. Thus, new claim 9 is patentable over the alleged combination of Kaneko and Ogishima.

New claims 10-13 are identical, and correspond to, claims 1, 4-5 and 7, respectively, except that claim 10 recites that the "at least one of a slit, opening, and ridge ... [are] provided such that substantially all of the at least one of a slit, opening, and ridge is within the boundaries, in plan view, of the slope of the adjusting layer."

As discussed at the personal interview, Ogishima does not disclose this feature. The Office Action cites to Figs. 52 and 53A as showing ridge 326'. However, ridge 326' is cross-shaped, and extends across the transmissive region T, and into the reflection region R (Figs. 52 and 53A). Thus, substantially all of the ridge 326' of Ogishima is, in plan view, over either the reflection region R or the transmissive region T, and not over the slope of the level difference 306. Kaneko and Okamoto do not cure these deficiencies.

For the foregoing reasons, new claims 8-13 are patentable over the applied references.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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